ABSTRACT

A method is provided for determining a bandwidth allocation needed to provide a specified QOS requirement that takes appropriate account of statistical variations for packet streams in a transmission link. In particular, a statistical model

5   of the packet stream is formed using fractional sum difference statistical models and the model is evaluated in respect to synthetically generated traffic streams. The bandwidth allocation approach is specified in terms of the bandwidth, β, required for a traffic load, τ, subject to the requirements of a maximum queuing delay, δ, and a packet loss limitation parameter, ω. Accordingly, that bandwidth allocation

10   approach is implemented as a statistical model for β as a function of τ, δ and ω.